

Description - Rationale - General Comments

Segment three traverses southeasterly on an undivided two-lane conventional highway 3.23 miles in length. The segment begins at Brockway Summit (El. 7,179 ft.) and descends 945 feet at a 6.79 % grade into the Tahoe Basin and ends at a three-way signalized intersection at State Route 28 in Kings Beach. The route provides access to commercial and residential land uses serving both regional and local traffic. This particular segment is primarily used for recreational access to and from the Tahoe Basin.

The segment crosses over mountainous terrain containing numerous horizontal curves. The combination of a 6.79% grade and horizontal alignment impact capacity and service flow rates. The terrain not only affects operating capabilities of vehicles, but also restricts the opportunity to pass slow-moving vehicles. The steep sustained uphill grade causes vehicles, particularly trucks, buses, and recreational vehicles, to travel at slow speeds and the absence of passing lanes and inadequate shoulder width on the uphill grade creates long traffic platoons, reduces capacity, affects the level of service and increases delay.

The route concept improvement on this segment consists of widening the shoulders to 8 feet from Brockway Summit to SR 28 near Kings Beach. During winter months heavy snow can be expected; therefore, the increased shoulder width would provide additional snow removal storage on the highway. In non-winter months, the additional shoulder width will provide emergency parking and allow slower moving vehicles temporary use of the shoulder to permit faster vehicles the opportunity to pass. This concept improvement would increase roadway safety, disperse traffic platoons and reduce delay. Although this segment is located inside the jurisdiction of the Tahoe Basin moratorium on highway construction, this type of project would not impede the Tahoe Basin moratorium on capacity improvements.

The ultimate concept improvement is to construct a truck-climbing lane in the northbound direction of SR 267 over Brockway Summit. Support for this concept is referenced in the Regional Transportation Plan - Air Quality Plan for the Lake Tahoe Region (Reaffirmed Dec. 1994).

Although left-turn pockets were constructed in 1999, further channelization and signalization improvements to the SR 267/28 intersection would provide capacity for peak period traffic demand and reduce operational conflicts among vehicles, pedestrians, and bicyclists. Support for this concept is referenced in the Environmental Improvement Program for the Lake Tahoe Region (February 1998), the Draft North Tahoe Community Plans (October 1994), and the Regional Transportation Plan - Air Quality Plan for the Lake Tahoe Region (Dec 1994). A "Minor A" project is proposed to modify the signalization.

The strategic deployment of Intelligent Transportation System (ITS) technologies such as Road Weather Information Systems (RWIS), Traffic Monitoring Stations (TMS), and Changeable Message Signs (CMS) should be integrated and applied to better manage and control traffic operating conditions.

Transportation projects are dictated by the environmental sensitivity of the Tahoe Basin and mandated by the Tahoe EIP (Environmental Improvement Program). Several projects within the Tahoe Basin are associated with the "Environmental Improvement Program" (EIP) which is a management practice to prevent or minimize water quality problems within the Tahoe Basin. These projects include such measures as erosion control, drainage improvements, mitigation plantings, scenic improvements, and the addition of drainage basins.

Projects Programmed (RTIP/STIP/SHOPP) Projects Listed in Local Long-Range Planning Documents

2002 SHOPP Scenic road #40 Brockway cutoff improvment

98/99 SHOPP Griff Creek - Improve drainage

(PM 8.9/9.8)

99/00 SHOPP Brockway Summit Plantings

01/02

Brockway Summit -Add

2002

SR 28/267 intersection improvments - Improve with

turn lanes to aid traffic flow.

- Mitigation plantings (PM

6.6)

SHOPP

drainage basin (PM 6.7/8.7)

SHOPP

(PM 9.89/9.94)

LOCAL PLANNING JURISDICTIONS

Tahoe Regional Planning Agency (TRPA)

RTPA/ **MPO**

P.O. Box 1038 Zephyr Cove, NV 89448

(530) 265-3260

Northern Sierra Air Quality Management District

Air

P.O. Box 2509,

Ouality Grass Valley, CA 95945 District (530) 274-9360

Air Quality

The following information is a brief overview only. For specific environmental information, contact the Caltrans District 3 Environmental Offices.

Air Basin: Mountian Counties

Federal Air Quality Non-Attainment Designations:

C0: Attainment

OZONE: Non-Applicable for 1 hr standard/non-attainment for PM10: Unclassified

8 hr standard

Land Use

Land use is undeveloped at the begining of this mountainous segment. As SR 267 descends into the Tahoe Basin in Kings Beach, the land use is primarily residential with some retail and tourist commercial. Recreation facilities include a golf course in the northwest quadrant of SR 267/28.

Modal Options

Northstar/Northshore Shuttle: The Northstar/Northshore Shuttle is operated by Northstar-At-Tahoe and provides service during the winter months of November through April. Service is provided between The Hyatt at Incline Village and Northstar-At-Tahoe. Service begins at The Hyatt at Incline Village at 8:00 AM and ends at Northstar-at-Tahoe at 8:40 AM with a return trip from 4:30 to 5:10 PM. ATM (Area Transit Management): ATM operates two busing routes on SR 267, they include: the Kings Beach Route and the Truckee Trolley Route. The Kings Beach Route operates November through April making ten runs per day, seven days a week between The Tahoe Sands Resort and Northstar-At-Tahoe from 7:00 AM to 5:30 PM. The Truckee Trolley operates November through April making ten routes per day, seven days a week between The Truckee Depot and Northstar-At-Tahoe from 7:00 AM to 5:30 PM. The Truckee Trolley also operates a service April through November making seven runs per day Monday through Saturday between the Truckee-Tahoe Airport and West End Donner Lake from 9:15 Am to 5:15 PM.

Bicycle: A Class II Bikeway (Bike Lane) will be constructed along SR 267 from Kings Beach to Brockway Summit. (Environmental Improvement Program for the Lake Tahoe Region, February 1998, Air Quality - p. 11) The implementation date of this project is scheduled for 2007. Because of the steep grade, bicycle speeds can approach those of motor vehicles; therefore, additional treated shoulder width should be provided in the design to provide increased sight distance and maneuverability with additional support from pavement markings and signs depicting "Bike Lane", "Share The Road", "Park Off Pavement" and "No Parking." All bikeway planning and design should be coordinated with local and regional agencies.

			Hi	ighway Log Ri	gnt of Way	Into	ormation	i
Average Median	Width: <u>0.00</u> N	Aeters	Average l	Lane Widths: 3,	66 Meters	Av	erage Shoulder Widths: 1.22 Meters	No. Lanes: <u>2</u>
			Tr	affic Analysis a	ınd Highwa	y In	formation	
<u>Year</u>	<u>AADT</u>	PeakHourly Volumes 950		V/C Ratio	LOS		Traffic Analysis Comments	
2000	9,900			0.60	Е			
2010	13,400	1,300		0.81	Е			
2020	16,900	1,600		1.02	F		and the control of th	was the same of th
Terrain: Mountaino			Land Use: Timberland & Urban				Future 20-Year Land Use: Timber	rland & Urban
% Traffic Growth/Yr: 3.8%			Daily Truck %: 4%			1%	Total Accident Rate vs Statewide Average:	<u>104%</u>
Peak Period D	oir Split: 5	5 <u>5%</u> P	Peak Period Truck %: 3%			3%	Fatalities + Injuries Acc Rate vs Statewide Avg:	<u>74%</u>

Future Right of Way Needs

Near term right of way widths should be obtained or reserved in order to widen the existing 4-foot shoulders to 8 feet. Long term right of way widths should be obtained or reserved in order to construct a northbound truck climbing lane and 8-foot treated shoulders on north and southbound sides. Additional shoulder width may be necessary to accommodate parking and bike lanes.

References

Route Concept and Development Report State Route 267, Caltrans April 1987

Draft North Tahoe Community Plans, Tahoe REegional PLanning Agency, October 1994

Environmental Improvement Program for the Lake Tahoe Region, Tahoe Regional Planning agency, February 1998

1997 California State Highway Log District 3, Caltrans

Statutes Relating to the California Department of Trasportation, Caltrans, 1996

State Higheway Inventory, Caltrans, June 1999

Placer County General Plan, Placer County, August 1994

Placer County Regional Transportation Plan, Placer County, January 1994.

Draft Lake Tahoe Basin Environmental Improvment Program Master Plan, Brown & Caldwell, May 23, 2000

California Natural Diversities Database

The California Natural Diversities Database (CNDDB) is an application created to allow for the ability to perform an environmental assessment. The CNDDB was used in this report to depict environmental resources that exist along State Route 267. Known environmental resources are displayed on the map illustrated below and can be evaluated for potential impacts that may result from future projects. These data provide an initial assessment of environmental issues and concerns that will need to be addressed during project planning and development. Additionally, this information can be used to evaluate the feasibility of a project and for examining different alternatives. These are biological resources that may be threatened or endangered. Feasibility of a project probably would only be an issue when there would be a direct impact to a Federal or State endangered species. It can also provide a preliminary estimate of time and staff resources that may be needed to comply with environmental assessment and documentation.

The following map identifies the status of habitats and species found within 300 meters of centerline on the existing State Route 267. This information does not represent all possible environmental constraints that may exist. If a future project were proposed within the State Route 267 corridor, an environmental assessment would be required.

Truckee Plumas Ivesia NEVADA COUNTY PLACER COUNTY PLACER COUNTY Tahoe Y ellow Cress Beach Lake Tahoe Benthic Stonefly Lake Tahoe

GLOSSARY OF ABREBUIATION & TERMS

- **AADT:** (Average Annual Daily Traffic) denotes that the daily traffic is averaged over one calendar year.
- **ADT:** (Average Daily Traffic) is the average number of vehicles passing a specified point during a 24-hour period.
- **AIR QUALITY NON-ATTAINMENT:** identifies non-attainment status for CO, Ozone and PM10 within the subject air basin.
- **AQMD:** (Air Quality Management District) is a regional agency, which adopts and enforces regulations to achieve and maintain state and federal air quality standards.
- **BCAG:** (Butte County Association of Governments) is the designated Regional Transportation Planning Agency for Butte County that prepares, adopts and submits a Regional Transportation program to the California Transportation Commission.
- **BPM:** (Beginning Post Mile) the starting point of each segment as defined by the highway post mile markers. (See EPM).
- **CAPACITY ENHANCEMENTS:** are new facilities projects and operational improvements, which add through lanes.
- **CBD:** (Central Business District) is the downtown core area of a city, generally an area of high land valuation, traffic flow, and concentration of retail business offices, theaters, hotels, and service businesses.
- CEQA: (California Environmental Quality Act) is a statute that requires all jurisdictions in the State of California to evaluate the extent of environmental degradation posed by proposed development or project. A 1970 law, which required those state agencies, regulate planning and development activity, with major consideration for environmental protection. The basic purposes of CEQA are to:
 - a. Inform governmental decision-makers and the public about the potential significant environmental effects of a proposed planning of development activity.
 - b. Identify ways environmental damage can be avoided of significantly reduced mitigation.
 - c. Prevent significant, avoidable environmental damage by requiring changes in projects through the use of alternative measures when those measures are feasible and overriding consideration.

- d. Disclose to the public the reasons why a governmental agency approved a project in the manner the agency chose if significant environmental effects are involved.
- **CEQA REVIEW:** is the review of environmental and other documents pursuant to CEQA Statutes & Guidelines.
- CIP: (Capital Improvement Program) is a seven year program of projects to maintain or improve the traffic level of service and transit performance standards developed and to mitigate regional transportation impacts identified by the CMP Land Use Analysis Program, which conforms to transportation related vehicle emissions air quality mitigation measures.
- **CMA:** (Congestion Management Agency) is the agency responsible for developing the Congestion Management Program and coordinating a monitoring its implementation.
- **CMS:** (Congestion Management System) is required by ISTEA to be implemented by states to improve transportation planning.
- **CMP:** (Congestion Management Program) is an integrated approach to programming transportation improvements. This approach requires detailed consideration of the complex relationships among transportation, land use and air quality.
- **CO:** (Carbon Monoxide) is an odorless, poisonous, flammable gas that is produced when carbon burns with insufficient oxygen.
- COG: (Council of Governments) is a voluntary consortium of local government representatives, form contiguous communities, meeting on a regular basis, and formed to cooperate on common planning and solve common development problems of their area. COG's can function as the RTPA's and MPO's in urbanized areas.
- **CONCEPT:** is a strategy for future improvements that will reduce congestion or maintain the existing level of service on a specific route.
- **CONCEPT FACILITY:** is a highway facility type and characteristics considered viable with or without improvement within the 20 year planning period given financial, environmental, planning ad engineering factors.
- **CONCEPT LOS:** is the highest and best level of service that can be attained by the end of the 20 year planning period based on the Concept Facility. The Urban standard is "E" and the rural standard is "D".
- **CONGESTION:** is defined by Caltrans as: reduced speeds of less than 35 mile per hour for longer that 15 minutes.

- CTC: (California Transportation commission) is a body established by Assembly Bill 402 (AB 402) and appointed by the Governor to advise and assist the Secretary of the Business, Transportation and Housing Agency and the legislature in formulating and evaluating state policies and plans for transportation.
- **D/C:** (Demand Capacity Ratio) is the relationship between the demand for vehicle trips on a facility, versus the number of vehicle trips that can be accommodated on that facility.
- **DSMP:** (District System Management Plan) is a part of the system planning process. The DSMP is the district's long range plan for management of transportation systems in its jurisdiction.
- **EPM:** (Ending Post Mile) the ending point of each segment as defined by the highway post mile markers.
- **FREEWAY CAPACITY:** is the maximum sustained 15 minute rate of flow that can be accommodated by a uniform freeway segment under prevailing traffic and roadway conditions in a specified direction.
- **FTIP:** (Federal Transportation Improvement Program) also referred to as the TIP. This is a short-range action plan to the long range RTP. It identifies specifically what projects will be funded within the next 3-7 years.
- **FUNCTIONAL CLASSIFICATION:** Guided by federal legislation, refers to a process by which streets and highways are grouped into classes or systems, according to the character of the service that is provided, i.e., Principal Arterial, Minor Arterial Roads, Collector Roads, Local Roads.
- HCM: (Highway Capacity Manual) revised in 1994 by the Transportation Research Board of the National Research Council, the HCM presents various methodologies for analyzing the operation (see Level of Service) of transportation systems as freeways, arterial, transit, and pedestrian facilities.
- **HSR:** (High Speed Rail) are trains that operate at 125 MPH or above.
- **HOT:** (High Occupancy Toll) are new HOV lanes that allow single occupant vehicles access for a fee.
- **HOV:** (High Occupancy Vehicle) are a lane of freeway reserved for the use of vehicles with more than a preset number of occupants; such vehicles often include buses, taxis and carpools.
- **IRRS:** (Interregional Road System) is a series of Interregional state highway routes, outside the urbanized areas, that provide access to, and links between the states economic centers, major recreational areas, and urban and rural regions.

ISTEA: (Intermodal Surface Transportation Efficiency Act) Federal legislation and funding Program adopted in 1991. It provides increased funding and flexibility for multimodal transportation programs. Update: ISTEA expired on September 30, 1997. In December 1997, Congress passed and the President signed a sixmonth extension of the law, holding funding to current levels and keeping program structure and formulas intact. This extension expired on March 31, 1998, with an obligation deadline of May 1, 1998. On June 9, 1998, the President signed into law PL 105 178, the Transportation Equity Act for the 215 Century (TEA 21) authorizing highway, highway safety, transit and other surface transportation programs for the next 6 years. TEA 21 builds on the initiatives established in the 1990 ISTEA.

ITSP: (Interregional Transportation Strategic Plan) describes and communicates the framework in which the state will carry out its responsibilities for the Interregional Improvement Program (IIP). It also identifies how Caltrans will work with regional agencies to consult and seek consensus on the relative priority of improvements. The plan is evaluated in terms of its progress in carrying out its objectives, strategies and actions and updated accordingly on a biennial basis.

LOCAL AND REGIONAL LOS STANDARDS: identifies the level of service standard set by local and regional jurisdictions in general plans and congestion management programs.

LOS: (Level of Service) is a qualitative measure describing operational conditions within a traffic stream; generally described in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. LOS A represents free flow, LOS F represents gridlock.

MODEL, MODE CHOICE: Is a model used to forecast the proportion of total person trips on each of the available transportation modes.

MPO: (Metropolitan Planning Organization) according to U.S. Code, the organization designated by the governor and local elected officials as responsible, together with the state, for the transportation planning in an urbanized area. It serves as the forum for cooperative decision making by principal elected officials of general local government.

MTA: Metropolitan Transportation Authority (Metro Bus Lines) is a network of subways, busses, and railroads providing alternate transportation services to travelers.

NTN: (National Truck Network)

MTP: (Metropolitan Transportation Plan)

MULTI MODAL: Pertaining to more than one mode of travel.

NATURAL DIVERSITY INFORMATION: identifies special status of habitats and species found within 300 meters of centerline of the existing highway facility.

NHS: (National Highway System) consist of 155,000 miles (plus or minus 15 percent) of the major roads in the U.S. Included will be all interstate routes, a large percentage of urban and rural principal arterials, the defense strategic highway network, and strategic highway connectors.

OZONE: (O₃) a form of oxygen with a peculiar odor suggesting that of weak chlorine. It is produced when an electrical spark is passed through air or oxygen.

PEAK: (Peak Period, Rush Hours): is defined as follows:

- The period during which the maximum amount of travel occurs. It may be specified as the morning (a.m.) or afternoon or evening (p.m.) peak.
- The period during which the demand for transportation service is the heaviest. (AM Peak period represents 6:30 a.m. to 8:30 a.m. and PM Peak period represents 3:00 p.m. to 6:00 p.m.)

PM: (Post Mile) is the mileage measured in statute miles from a county line or the beginning of a route to another county line or the ending of the route. Each post mile along a route in a county is a unique location on the State Highway System.

PM10: is particulate matter with a diameter of 10 microns of less.

PM2.5: is particulate matter with a diameter of 2.5 microns or less.

PKm: (Post Kilometer) is the mileage measured in kilometers from a county line or the beginning of a route to another county line or the ending of the route. Each post mile along a route in a county is a unique location on the State Highway System.

PSR: (Project Study Report) is the pre-programming document required before a project may be included in the STIP.

RIP: Regional Improvement Plan

RTIP: (Regional Transportation Improvement Program) is a list of proposed transportation projects submitted to the CTC by the regional transportation planning agency, as a request for state funding through the Flexible Congestion Relief (FCR) and Urban and commuter Rail Programs. The individual projects are first proposed by local jurisdictions (CMA's in urbanized counties), then evaluated and prioritized by the RTPA for submission to the CTC. The RT1P has a seven-year planning horizon, and is updated every two years.

RTP: (Regional Transportation Plan) is a comprehensive 20 year plan for the region, updated every two years by the regional transportation planning agency. The RTP includes goals, objectives, and policies, and recommends specific transportation improvements.

RTPA: (Regional Transportation Planning Agency) is the agency responsible for the preparation of RTP's and RTIP's and designated by the State Business Transportation and Housing Agency to allocate transit funds. RTPA's can be local transportation commissions, COG's, MPO's or statutorily created agencies.

RURAL: Used to describe areas lying outside the U.S. Census urban area boundary, less than 2,500 population (less than 5,000 population for Federal-Aid highway purposes).

SACOG: (Sacramento Area Council of Governments) is the Regional Planning Agency for the Sacramento Region, and is responsible for the preparation and adoption of a Regional Transportation Improvement Program (RTIP) for Sacramento, Sutter, Yolo, and Yuba counties.

SHOPP: (State Highway Operation and Protection Program) is a four-year program limited to projects related to State highway safety and rehabilitation.

SIP: State Improvement Plan

SR: (State Route) are highways within the state, which are distinctively designed to serve intrastate and interstate travel.

SRTD: (Sacramento Regional Transit District)

SRTP: (Short Range Transit Program) is a five year comprehensive plan required by the Federal Transit Administration for all transit operators receiving federal funds. The plans establish the operator's goals, policies, and objectives, analyze current and past performance, and describe short-term operational and capital improvement plans.

STIP: (State Transportation Improvement Program) is a list of transportation projects, proposed in RTIP and the PSTIP, which are approved for funding by the CTC. The STIP has two main funding components: the RIP and the IIP. Currently, after SB 45 the STIP was changed from a 7-year action plan to an interim 6-year plan. At the year 2000 and thereafter, the STIP will be a 4 year plan with updates every two years.

STRAHNET: (Strategic Highway Corridor Network)

TASAS: (Traffic Accident Surveillance and Analysis System) is a system that provides a detailed list and/or summary of accidents that have occurred on highways, ramps, or intersections in the State Highway System. Accidents can be selected by location, highway characteristics, accident data codes and combinations of the above.

TCR: (Transportation Concept Report) is a Route Concept Report (RCR) that analyzes a transportation corridor service area, establishes a twenty-year transportation planning concept and identifies modal transportation options and applications needed to achieve the twenty year concepts.

TOT/MVM: (Total Accidents per Million Vehicle Miles)

TRAFFIC CONDITIONS: are any characteristics of the traffic stream that may affect capacity or operations, including the percentage composition of the traffic stream by vehicle type and driver characteristics (such as the differences between weekday commuters and recreational drivers).

TRAFFIC FORECAST: Is a best estimate of the future conditions, demand and resulting volumes. A forecast also identifies whether or not the subject segment of a route is designated as being part of a system. National Highway System (NHS), Interregional Highway System (IRRS), Freeway/Expressway System, Scenic Highway, National Truck Network, Terminal Access Route for the National Truck Network, Strategic Highway Network (STRAHNET), Highways of Regional Significance.

TSM: (Transportation System Management) is that part of the urban transportation Process undertaken to improve the efficiency of the existing transportation system. The intent is to make better use of the existing transportation system by using short term, low capital transportation improvements that generally cost less and can be implemented more quickly than system development actions.

URBAN: is that area lying inside the U.S. Census urbanized boundary.

UTPS: (Urban Transportation Planning System) is a tool for multimodal transportation planning developed by the Urban Mass Transportation Administration (now Federal Transit Administration) and the Federal Highway Administration. It is used for both long and short-range planning, particularly system analysis and covers both computerized and manual planning methods. UTPS consists of computer programs, attendant documentation, user guides and manuals that cover one or more of five analytical categories: highway network analysis, transit network analysis, demand estimation, data capture and manipulation, and sketch planning.

V/C: (Volume/Capacity) is defined, as V/C is a ratio of number of vehicles operating to capacity for a traffic facility.